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ABSTRACT

SEPARATE SECTIONS OF THE STUDY PRESENT DETAILED INFORMATION AND ANALYSES OF--(1) THE EDUCATIONAL PROGRAM, (2) SCHOOL ENROLLMENTS, (3) EXISTING SCHOOL PLANT, (4) FINANCIAL RESOURCES, AND (5) SCHOOL PLANT NEEDS. RECOMMENDATIONS ARE SET FORTH AND THEIR FINANCIAL IMPLICATIONS CONSIDERED. (FS)

EDUCATIONAL FACILITY NEEDS

of the

MADISON-PLAINS LOCAL SCHOOL DISTRICT

Madison County, Ohio

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Table of Contents

Table of Contents (Continued)

List of Tables

List of Tables (Continued)

Part A -- The Setting

It should be noted that this particular section is included to familiarize the reader with the general setting of the school district. It is not to be considered a part of the analysis of the district leading to recommendations to be made by the Survey Staff.

1. Location

1.1 Madison-Plains is a local school district in west-central Ohio, approximately 42 miles southwest of the City of Columbus.

1.2 The school district is situated in the southern half of Madison County.

1.3 The school district is bound on the north by the London City School District and Jefferson Local School District.

1.4 Clark and Greene Counties border Madison-Plains to the west, Fayette County is on the southern border and Pickaway and Franklin Counties border to the east.

1.5 London City School District protrudes into Madison-Plains School District in the northwest.

1.6 A small portion of the school district extends into Franklin County. A narrow corridor of land on either side of State Route 277, which is a part of Madison-Plains, extends into Fayette County.

1.7 Madison-Plains covers a total area of 270 square miles.

1.8 The Madison-Plains Local School District was organized in 1968 as a result of a merger between the Madison Local and the Plains Local School Districts.

2. General Characteristics of the Area

2.1 The major industry in Madison-Plains Local School District is farming. Small farms, however, are slowly giving way to mergers into large cooperative farms.

2.2 Many of the residents in the area no longer farm for a livelihood, but work in nearby urban centers such as Columbus and Springfield.

2.3 Local industry is of little or no consequence at the present time. There are approximately 400 individuals employed by four or five small businesses.

2.4 New residences are being built but not at a rate that would indicate the possibility of rapid growth in the very near future.

2.5 Inter-state Highway I-71, a mass transportation artery, passes through the southeast section of the school district. There is also a rail line which passes through the district at Mount Sterling and at Lilly Chapel.

Part B -- The Educational Program

Physical facilities, it should be noted, are only tools which are utilized by the school district to insure that the program will meet the needs of those children in attendance. Insofar as possible, school facilities should be flexible and supportive rather than restrictive

in their influence on the inevitable necessity for change in a modern school program.

Part B is a discussion of the total program, K-12, as it exists today and with particular emphasis upon desired changes which will affect the extent and character of future construction and/or remodeling.

Realizing that program, present and desired, is the heart of a study, the Survey Staff met for several hours with the representatives of the Madison-Plains educational staff, including the superintendent, the high school principals, the elementary school principals, and elementary and secondary level teachers.

1. Present Status of Program

1.1 The present program is traditional in nature, and cannot be considered innovative in its makeup.

1.2 The school district does meet the new minimum standard curriculum requirements as set forth by the State Board of Education.

1.3 The development of a strong program is hampered by the high transient rate of teachers.

1.4 The recent consolidation of Madison Local and the Plains Local School District into one has created a lag in program continuity this first year.

1.5 There are no provisions presently for those students who are progressing at a slower than usual pace.

1.6 Textbooks are being replaced on a recently initiated 5-year renewal plan. Presently, one-fourth of the outdated books are being replaced each year.

1.7 The local staff is aware that the present program is not adequate to meet the educational needs of the students. They are also very concerned about upgrading the quality of the present program.

1.8 Some aspects of the program are hampered by the transportation problem which is the consequence of some students having to ride school buses for as long as one and one-half hours each way.

1.9 A government subsidized lunch program is provided for all students desiring to participate. Presently, approximately 50% of the student body in all schools are involved in this program.

1.10 At present, there are no provisions for meeting the needs of the physically handicapped children. These children are sent to Columbus on a tuition basis.

1.11 The Title I funds previously used to finance a summer program are now being used to provide a more comprehensive program during the school year.

2. Vertical Organization

2.1 The present organization is basically a modified 8-4 structure with kindergarten in all schools except Midway Elementary. Pupils from Midway attend South Solon kindergarten.

2.2 The Madison Rural School is divided into two sections, kindergarten through 4th grades and 7th and 8th grades.

2.3 The Midway Elementary School has grades 1, 3, and 5 in its enrollment.

2.4 The South Solon Elementary School consists of kindergarten, and grades 1, 2, 4, and 6.

2.5 The Mt. Sterling School houses elementary pupils, K-through 6, and secondary students, 9 through 12.

2.6 The Fairfield School has students in grades K through 8.

2.7 Local school officials are not definitely committed to this plan of organization which appears to be the result of inadequate facility size. The staff has not firmed on any particular pattern of organization and are open to suggested alternatives.

3. Elementary Schools

3.1 It is the opinion of the Staff that the elementary classes are overcrowded, although the condition has been ameliorated somewhat by providing paraprofessionals for some teachers.
It is the opinion of the Staff that class sizes should be limited to 20 students in the first grade and 25 students in grades 2 through 6.

3.2 There was no concensus reached about the desired size of the elementary schools. The discussion centered around two and three rooms per grade and the possibility of establishing two elementary centers. With two rooms per grade, and an average

of 25 students per room, a six-year elementary school would have an enrollment of 300 pupils plus 50 for kindergarten. Three rooms per grade would provide for 450 pupils in grades 1 through 6 or 525 with kindergarten.

3.3 The instruction of elementary school children is done within the self-contained classroom-type of organization. This procedure is expected to continue, although there was an expression of interest in the continuous growth type of instruction. All subjects are taught by the classroom teacher with the exception of vocal music.

3.4 Students are grouped heterogeneously in grades 1 through 6, although there is homogeneous grouping in some schools in grades 5 and 6.

3.5 Vocal music is taught by two specialists, who travel between schools, in grades 1 through 6. Instrumental music is taught beginning in grade 5.

3.6 The reading program is centered around the use of the Scott-Foresman Basal Series. Supplementary materials, such as the SRA Reading Kits, teaching machines, Readers' Digest and Ginn and Company are available for teacher use.

3.7 The teaching of physical education is the responsibility of the classroom teacher. The physical education teacher at the Mt. Sterling School provides activities for students on Saturday morning.

3.8 A remedial reading program is provided for students in grades 1 through 3 through the use of Title I funds from the federal government. Reading specialists have been retained for this program.

3.9 Kindergarten is provided for all qualified children in the district.

3.10 Library facilities as such are inadequate. There is no professional librarian in the school district. Rooms, inadequate in size, are used to house available library materials. Mt. Sterling Elementary has no room for a library. Materials are stored in different teachers' rooms. The present library program, in some instances, is supplemented by the use of students, volunteer parents, and classroom teachers. A bookmobile is available to the school district from the State Library Department.

3.11 Art activities are provided by the teacher in the regular classroom.

3.12 Students are tested, using Scott-Foresman testing materials upon entry into first grade in an effort to ascertain their readiness for the reading program. Presently there is no educational provision for the child not ready to read at age 6.

3.13 Health services are provided in the elementary schools through the use of the county health nurse.

3.14 Psychological services are available through the county office to the staff and students. The guidance counselor, who is assigned to the high school, also provides counseling services to the elementary schools.

3.15 Speech and hearing therapy is provided by itinerant specialists from the county office.

3.16 Desired improvement in the elementary school program.

a. Special education classes

b. Specialists in art

c. Specialists in physical education

d. Multi-media centers with specialists

e. Smaller class sizes

f. Paraprofessionals in all grades

g. Remedial specialists, grades 1 through 6

h. Guidance personnel

i. Expanded testing program

j. Summer library

k. Continuous growth program

l. Program for children during the summer

4. Junior High School

4.1 The junior high school program is operated on a 2-year (grades 7 and 8) basis. The children are taught using a departmentalized pattern of organization. This organizational structure has the CORE curriculum as its base. South Solon Elementary School is also departmentalized at grade 6. The junior high school students are housed in the same building with elementary school students. The program is separate, although this situation does cause some conflict in terms of scheduling

and maximizing the use of facilities by both groups. Local school officials are interested in providing separate facilities for all junior high school age students.

4.2 The administrative staff, as well as the classroom teachers, envision 30 pupils per classroom as the desired maximum. Note Table B-1.

4.3 The present 7th and 8th grade enrollment is approximately 360 students. The desired junior high school would range between 500-700 pupils. A middle school of grades 6, 7, and 8 would range between 600-800 pupils.

4.4 The junior high school program is typically traditional and meets the minimum standards as set forth by the Ohio State Board of Education.

4.5 Students are very limited in terms of the availability of elective subjects. Instrumental music appears to be the extent of electives offered to them.

4.6 Boys as well as girls are required to take home economics at the Madison Rural School. This is accomplished on a rotation basis.

4.7 Because of limited facilities, boys and girls alternate days each semester in physical education classes.

4.8 Industrial arts is not offered to junior high school students.

4.9 Library facilities are very limited or non-existent at the junior high school level. A bookmobile is provided to enhance the program at the Madison Rural School.

4.10 Health services are provided by Madison County agencies in the same manner as they are provided for the elementary school students.

4.11 There are no special classes designed specifically for the slow learner and the under-achiever.

4.12 After-school activities are non-existent due to the great distances children must travel by bus.

4.13 Desired improvement in the junior high school program:

a. Broader curriculum offerings

b. Remedial reading specialists

c. Guidance counselors

d. Special education classes

e. Multi-media centers with specialists

f. Paraprofessionals for all teachers

g. Increased psychological and health services

h. Comprehensive testing program

i. Provisions for independent study

j. Beginning vocational education

5. Senior High School

5.1 Presently two 4-year high schools are in operation as a result of the consolidation of Madison Local and the Plains Local School district in 1968.

5.2 The program offered is very traditional with both schools offering the minimum number of courses as prescribed by the State. See Table B-1 for courses offered.

5.3 Approximately 25% of the students go in to some form of higher education upon graduation. With this in mind, the Staff is desirous of providing a more meaningful type of program for all students.

Table B-1

Subject Area Indexes and Average Class Sizes for the Secondary School Programs

Subject Area	Desired Average Class Size 6-8	Desired Average Class Size 9-12	Subject Area Index of Present High School Program 9-12	Subject Area Index of Desired Middle School Program 6-8	Subject Area Index of Desired Middle School Program 7-8	Subject Area Index of Desired High School Program 9-12
Academic	30	30	98	54.4	55.4	86
Business						
Typing	--	26	937	--	--	819
Other	--	26	386	--	--	337
Home Economics	--	15	324	--	--	283
Industrial Arts	--	16	286	--	--	250
Vocational Agriculture	--	15	862	--	--	755
Science						
Chemistry, Physics	--	25	1,360	--	--	1,190
Other	25	30	491	175	117.9	429
Music	60	50	1,032	669	842.5	903
Instrumental	--	50	2,498	--	--	2,186
Vocal	--	50	1,760	--	--	1,540
Physical Education	30	30	542	210	210	475
Art	--	25	--	--	--	813
Unified Arts	25	--	--	175	175	--
Study	75	100	571	799	525	1,016

A subject area index represents the total enrollment out of which a sufficiently large number of pupils will enroll in a given subject area to utilize one teaching station full time. In grades 9 through 12 for example the index of 98 says that for every 98 pupils in total enrollment in the high school one academic classroom will be required. In art, on the other hand, only one teaching station will be needed for every 813 pupils.

The indexes as calculated reflect such factors as numbers enrolled in each subject field, average class size in each subject area, and number of periods per week for each course.

A teaching station is defined as a classroom or other area where one teacher can teach one class. The typical classroom or laboratory, for example, would be a teaching station. On the other hand, a large gymnasium which could accommodate two teachers and two classes simultaneously would be counted as two teaching stations.

Source: Administrative Staff, Madison-Plains Local schools. Calculations by the Survey Staff.

5.4 Those students not scheduled for classes at any particular time are assigned to study hall. It is estimated that each student has two to three study hall periods each day.

5.5 The schools are organized on a ten-period day with the first and last periods being used for bus loading and unloading, band, chorus, and other such extra-curricular activities.

5.6 Curriculum offerings in each school are severely limited by the small enrollments and the limitations imposed by inadequate facilities.

5.7 Students are grouped according to ability on a tracking system which is based upon prior academic achievements and test results. There is some degree of flexibility in placement and parents are consulted in the placement of all students.

5.8 There is a minimum of 17 credits required for graduation. Due to the acute shortage of staff and to the limitations imposed by shortage of space, the electives offered leave much to be desired.

5.9 Library facilities are extremely limited due to space allocations. Much of the material in the present library is useless because it is out of date.

5.10 Vocational agriculture and industrial arts are available at the Madison South School. The Plains School does not offer vocational agriculture due to space limitations, and a lack of student interest.

5.11 Business education and commercial courses for the girls are felt to be adequate in meeting their particular needs.

5.12 Band, chorus, and music appreciation is available to students in both schools.

5.13 Inter-scholastic activities are available for both boys and girls. Boys engage in basketball, football, baseball, and track. The girls' activities include volleyball, basketball, and softball. There are no after-school intramural activities, again due to transportation difficulties. Some intramural activities are conducted at the noon lunch hour.

5.14 The desired class sizes are as follows:

a. Academic, 25

b. Industrial arts, home economics, 15

c. Vocational agriculture, 15-16

d. Mechanical drawing, 25

The desired high school size ranges between 750-1,000 students.

5.15 Co-curricular activities include science and French clubs, student council, Future Farmers of America, Future Teachers of America, the school newspaper, yearbook, and class plays.

5.16 The pupil services for the high school are the same as those provided for the junior high school students. There is a guidance counselor assigned to the high school on a part-time basis. Health services are also identical to those provided for the junior high school and elementary school students.

5.17 Desired improvements in the high school program:

a. Special education classes

b. Remedial reading program

c. Multi-media center with specialists

d. Paraprofessionals

e. More comprehensive testing programs

f. Full-time guidance personnel

g. In-service program for teachers

h. Better health services

i. Stronger vocational education program

j. A decrease or elimination study hall

k. Provisions for independent study

l. Better method of scheduling

m. Expanded curricular offerings

6. Other Program Aspects

6.1 The adult education program is extremely limited, although adult groups do use the school facilities for a number of evening activities.

6.2 The central administration of the school system consists of the superintendent of schools, the clerk-treasurer and one secretary.

6.3 The school system has a fleet of 26 buses which are maintained by board employees.

Part C - School Enrollments

Note: Part B dealt with school program, which establishes the need for school plant facilities in a qualitative sense. Part C, dealing with school enrollments, considers the need for facilities in a quantitative sense.

1. Population Trends

   1.1 Table C-1 indicates the estimated total population of the Madison-Plains Local School District by elementary school attendance area.

   1.2 New dwelling units constructed in the school district since 1958 are shown on Table C-2. The average annual rate of housing construction is 24 units per year.

   1.3 The rate of population growth is estimated as being slightly over one (1) percent a year.

2. Population Growth Prospects

   2.1 The superintendent reports the existence of two housing developments in the district. One (Pleasant Ridge) has developed 24 acres containing 20 houses with projections for 54 additional houses to be constructed over the next 8 years; the other called Westwood contains 39 lots of which 30 are currently developed.

   2.2 The area is a superior agricultural area and prospects are for a continued emphasis in agriculture.

      a. Although the trend toward larger farms may continue, it is not expected that this will result in any decrease in total population.

Table C-1

Estimates of Population 1969
Madison Plains Local School District

Figures by Elementary School Attendance Area	
Midway	1072
South Solon	870
Madison Rural	2029
Fairfield	1201
Mount Sterling	2157
Total	7329

Source: Administrative Staff Madison Plains Local School District.

Table C-2

Number of New Dwelling Units Constructed

Year	Units
1958	26
1959	23
1960	32
1961	27
1962	21
1963	24
1964	30
1965	17
1966	26
1967	25
1968	17
TOTAL	268

Source: Administrative Staff Madison Plains Local School District.

2.3 There is little likelihood of any major industrial development within the school district. However, several smaller concerns are located in Mt. Sterling and prospects for other such industrial developments are promising.

2.4 The location of the interstate highway with its easy commuter access to Columbus might encourage residential development. Therefore, the trend toward the development of suburban homes in the area is expected to continue.

3. Birth Trends

3.1 Birth data are commonly used in projecting enrollments. However, birth data for the Madison-Plains Local School District are not available.

3.2 Birth data for Madison County are available and were used by the Survey Staff. Close examination of the birth data for Madison County reveal that they parallel to a reasonable degree the first grade enrollment trends for the Madison-Plains Local School District. Table C-3 summarizes the birth data for Madison County.

3.3 Table C-3 indicates that children born in 1967 were only 78.5% as numerous as those born in 1956 and that the birth rate had peaked at 22 live births per 1,000 population in 1961. Present birth rates have dropped to under 16 live births per 1,000 population.

Table C-3

Resident Live Births in Madison County
Excluding London 1956-1967

Year	Live Births	Index	Birth rate per 1000
1956	448	100	20.7
1957	473	105.5	21.1
1958	447	99.7	19.3
1959	456	101.7	19.1
1960	440	98.2	21.8
1961	451	100.6	22.0
1962	450	100.4	21.6
1963	456	101.7	21.6
1964	427	95.3	20.0
1965	400	89.2	18.4
1966	345	77.0	15.7
1967	352	78.5	15.9

Source: Data from Ohio Department of Health, Division of Vital Statistics. Calculations by the Survey Staff.

4. Past Enrollment Trends

4.1 Enrollments for the past 8 years have been summarized in Table C-4. These data indicate growth at practically all grade levels in spite of the fact that the birth rate has been decreasing. This is due to some net in-migration of families to the school district.

4.2 The greatest increases are shown in the high school grades. This is due to the higher birth rates of the early 1950's; in-migration of older children; and a decrease in the dropout rate.

5. Future Enrollments

5.1 Among the many factors which will determine the future number of children in school in a given school district are:

a) The number of children born in the school district.

b) The net effect of migration into and out of the school district.

c) The enrollment of children in non-public schools.

d) The enrollment of children from outside the school district.

e) Changes in school district boundries.

f) Changes in first grade entrance requirements.

g) Changes in promotion policies.

h) Changes in the holding power of the high school.

5.2 It is not possible in many districts to obtain hard data with respect to many of these factors, and this is true in the Madison-Plains Local School District. However, each factor has been examined in light of the best available information, and projections of future enrollments have been made accordingly.

Table C-4

Enrollment by Grade and Grade Group for 1960-61 and 1968-69
and Indexes of Intervening Years
Madison-Plains Local School District

Grade or Group	October 1960 Enrollment	Index of Enrollment (1960-61=100)								October 1968 Enrollment
		1961-62	1962-63	1963-64	1964-65	1965-66	1966-67	1967-68	1968-69	
1	182	115.3	110.4	119.7	120.3	109.3	115.3	110.9	110.4	201
2	182	103.2	99.4	104.3	110.4	106.5	99.4	109.3	100.5	183
3	165	114.5	108.4	109.6	123.6	119.3	117.5	107.8	118.7	196
4	173	92.4	97.6	102.3	104.0	110.9	104.0	113.8	107.5	186
5	163	107.3	96.9	106.7	103.0	104.9	122.0	106.7	115.3	188
6	167	97.6	105.9	95.2	100.5	105.3	100.5	116.7	104.7	175
1-6	1032	105.1	103.1	106.4	110.4	109.3	109.6	110.9	109.3	1129
7	169	100.0	98.2	105.3	94.0	99.4	104.1	101.7	118.9	201
8	171	100.5	94.1	100.0	97.0	83.0	94.7	102.9	95.3	163
7-8	340	100.2	96.1	102.6	95.5	91.1	99.4	102.3	107.0	364
9	158	113.2	115.1	106.3	110.1	105.6	94.9	106.9	109.4	173
10	124	110.4	129.8	128.2	122.5	119.3	124.1	109.6	120.9	150
11	117	87.1	107.6	117.9	117.0	119.6	119.6	124.7	111.9	131
12	100	108.0	108.0	125.0	122.0	129.0	125.0	129.0	142.0	142
9-12	499	105.4	115.6	118.2	117.2	117.0	114.0	116.2	119.4	596
1-12	1871	104.3	105.2	108.9	109.5	108.1	108.9	110.7	111.6	2089

Source: Administrative Staff, Madison Plains Local Schools.
Calculations by the Survey Staff.

5.3 The method used in this survey for projecting future enrollments starts with estimating first grade enrollments from the number of births in the county six years earlier. Beyond this point, each grade is estimated on the basis of survival rates from grade to grade.

5.4 Because of the uncertainties inherent in any projection, two sets of estimates have been prepared. These are reported in Table C-5. The lower figure indicates the probable lower limits of enrollment while the upper figure indicates the maximum enrollment probable under existing conditions. Changes in conditions could, of course, change enrollments.

5.5 Table C-5 groups the enrollment data into various combinations of grades to permit study of various organizational patterns that are possible.

5.6 Table C-5 indicates a relatively stable pattern of school enrollments for the coming decade. Elementary enrollment should range between 1070 and 1150; junior high school between 324 and 383; and high school between 571 and 710.

It is important to note that the projections are based on past history and that changes in rate of housing starts, increases in birth rates, and migration patterns all could significantly alter the projections as noted in Table C-5.

Table C-5

Past and Projected Enrollments
Madison Plains Local Schools

School Year	Grades 1-6	Grades 1-5	Grades 7-8	Grades 6-8	Grades 7-9	Grades 9-12	Grades 10-12	Total 1-12
1960-61	1032	865	340	507	498	499	341	1871
1962-63	1065	888	327	504	509	577	395	1969
1964-65	1140	972	325	493	499	585	411	2050
1966-67	1132	964	338	506	488	569	419	2039
1968-69	1129	954	364	539	537	596	423	2089
1970-71	1093/1135	914/949	358/368	537/554	558/575	617/648	417/441	2068/2151
1972-73	1077/1139	911/957	355/383	521/565	541/582	632/685	446/487	2064/2207
1974-75	1074/1141	909/955	327/370	492/556	506/573	623/702	444/499	2024/2213
1976-77	--	--	324/372	490/559	489/566	594/702	429/508	--
1978-79	--	--	336/386	509/581	499/578	571/693	408/501	--
1980-81	--	--	325/374	--	499/580	580/710	406/504	--

Source: Calculations by the Survey Staff.

Notes: a. Figures above broken line are actual; those below are projected estimates.
b. Where two figures are shown, they are low and high estimates, respectively.

6. Limitations of Enrollment Projections

6.1 Long-range enrollment and population projections are very difficult to make because so many of the contributing data are not measurable or predictable especially in a small school district for which population data and birth data are not readily available.

Estimates can be reasonably accurate in the short term, but become increasingly questionable with each passing year. Such estimates must, therefore, be used cautiously and revised frequently.

6.2 The enrollment projections developed for this study assumes that the factors in Item 5.1 above will continue to operate in the future as they have in the past.

6.3 Data on non-public school enrollment are not available but the hypothesis is that the number of children attending non-public schools are minimal. There are no tuition students in attendance.

6.4 State legislation adopted in 1967 established a uniform entrance age for admission to the first grade in all schools of the state. Starting in September 1969 the entrance age requirement will be that the child must be six years of age on or before September 30. Since previous policy stated that the child was to be six before November 1; the change to September 30 next fall could reduce substantially the first grade enrollment and this drop would appear

successively in subsequent grades for a 12-year period. The effect would be temporary, it would not be cumulative and it would not effect any one grade more than one year.

6.5 Retention (non-promotion) of pupils tends to increase the total enrollments because a pupil retained remains in school an additional year for each year of retention. Retentionscan occur at any grade level but are most prevalent at the end of the first grade. Retentions at the end of Grade 1 in the Madison-Plains schools are reported in Table C-6. The rates of retention are higher than usually found and might well be questioned on educational grounds. Such questioning, however, is not within the purview of this study, but there are school plant implications involved. With an average of 20.5 pupils, the equivalent of 2/3 of an additional classroom is required each year to accommodate the first graders who are not promoted. Since the effect would be cumulative, continuation of this rate of retention would eventually require four additional classrooms in a six-year elementary system. If retention rates were adjusted downward, enrollment projections, as noted would be somewhat high.

6.6 A long held major goal of our society is high school graduation for all young people. Nationally, approximately 25% of our young people drop out before graduation. The survival data in Table C-7 indicates some dropping off at the high school level. The rates of survival in these grades would be lower if there was no net

Table C-6

Retentions in Grade 1 in the Madison Plains Local Schools
1958-59 through 1967-68

School Year	October Enrollment	Year End Retentions	Percent Retained
1958-59	205	19	9.2
1959-60	182	16	8.7
1960-61	210	32	15.2
1961-62	201	18	8.9
1962-63	218	23	10.5
1963-64	219	18	8.2
1964-65	199	19	9.5
1965-66	210	18	8.5
1966-67	202	21	10.3
1967-68	201	24	11.9

Source: Administrative Staff, Madison-Plains Local School District.
Calculations by the Survey Staff.

Table C-7

Average Rates of Grade to Grade Survival
1960-61 to 1968-69

Grade	Percent of Survival
1-2	92.2
2-3	99.4
3-4	96.3
4-5	97.8
5-6	98.8
6-7	100.5
7-8	96.5
8-9	102.1
9-10	89.3
10-11	89.8
11-12	95.1

Source: Calculated by the Survey Staff from enrollment data forwarded by the Administrative Staff, Madison-Plains Local School District.

in-migration, but data do not exist to reveal how much loss occurs by dropouts alone.

6.7 The Madison-Plains Local School District has been in existence since 1968 and it would appear that no future changes in school district boundaries are contemplated. There were, therefore, no adjustments made in the enrollment projections for this factor. The Survey Staff, however, is aware that merger with London has been suggested from time to time and the possibility of such a consolidation deserves consideration. In formulating the recommendations in this report, no provision will be made for such a merger, but every effort will be made to avoid creating any situation that would unnecessarily obstruct a joining of the two districts if they should later desire to merge.

6.8 In the current study, a pre-school census was conducted by the local administrative staff. This census was quite complete and accurate, and the Survey Staff used the census data for one set of enrollment projections. These projections differed only slightly from those based on birth rate.

The Madison-Plains Local School District may find it helpful to make an annual census and to revise its enrollment projections frequently on the basis of census data.

Part D - Summary of School Plant Needs

Note: Parts B and C have dealt with school program and enrollments, respectively, as the two determinants of school plant need. Part D now draws from the preceding two parts, a single list of needed facilities, which will be used in recommendations for improvements.

1. Elementary School Needs

   1.1 In 1974-75, using projections for grades 1 through 5 from Table C-5, there will be need for 36 to 38 elementary school classrooms with 25 per room and 30 to 32 rooms with 30 per room. For grades 1 through 6 the needs are for 43 to 46 classrooms at 25 per room.

   1.2 These elementary classrooms should be grouped by building with two or three rooms per grade where possible.

   1.3 Normally kindergartens would be provided at the rate of one kindergarten for each two first grade rooms or fraction thereof. The number of first graders for 1974-75 is 191. Assuming an equal number of kindergarten pupils, 4 kindergartens would be needed.

   1.4 The elementary classrooms should be sized and designed as "self-contained" classrooms providing facilities for instruction in most subjects. Sinks, workcounter, library shelving, storage cabinets for supplies and tools, and movable seating are desirable attributes for self-contained classrooms.

1.5 Each elementary school should have a library or instructional materials center adequate to accommodate at one time all pupils from one classroom and up to 8 or 10 pupils working on individual projects.

1.6 Each elementary school should have a suitable place for individual and small group instrumental music instruction, and also a place for larger, intergrade choral music work. A preferable arrangement is to have a single music room with suitable acoustical isolation from the classrooms and other quiet areas of the building.

1.7 A special art room should be provided in any new elementary school. In existing buildings, a small central room for art storage and preparation would provide desirable support for the art instruction in the regular classrooms.

1.8 Indoor instructional space for physical education is needed in each elementary school. This should be ample in area and height for basketball and other group games. No shower and locker facilities are needed for physical education classes.

Since physical education may be taught by an itinerant teacher, it is desirable that there be a small office or other area which can be used as a home base.

1.9 An assembly space for at least half, and preferably all, of the pupils is needed in each elementary school.

1.10 Each elementary school needs a clinic in which a part-time nurse can work, and which also provides space for isolation of a pupil who becomes ill or requires rest. Since the need for the facility as a sick bay cannot be scheduled, shared used of the space is not desirable.

1.11 One or more small rooms are required in each elementary school where a special teacher, either resident or itinerant, can work with individual pupils or small groups. The services to be provided in these rooms include:

a) Psychological services, which are now provided by the county and which are expected to continue.

b) Remedial reading.

c) Guidance services, not now available but desired.

d) Speech and hearing therapy services.

1.12 Classes for slow learners should be housed in buildings with other elementary school classes.

1.13 An office suite is required in each elementary school building. At the minimum this should include a private office for the principal; space for the secretary's desk and files; space for storage of supplies; duplication of materials, and collating of materials; and waiting space for visitors.

1.14 Each elementary building should have a lounge, with toilet facilities, for teachers.

1.15 A work room, which teachers can use for the preparation of teaching materials is required to each elementary building.

1.16 Each elementary requires a lunchroom adequate to feed substantially the entire enrollment.

2. The Middle/Junior High School Needs

2.1. Table D-1 shows the numbers of teaching stations required within the range of projected enrollments reported in Table C-5. These room requirements were calculated by using the subject indexes from Table B-1. Since no present program exists, this is a desired program.

2.2 There should be a classroom for slow learners.

2.3 There is need for a library or instructional materials center, providing books, periodicals, newspapers, and audio-visual materials and equipment.

2.4 Offices for the size of school contemplated should include a private office for the principal; space for one full-time secretary and an occasional helper; waiting space for visitors, including pupils coming to the office; a conference room, and a place for storage of supplies and duplicating of materials.

2.5 Other facilities required in any junior high or middle school include:

a. A suitable assembly space for at least half the student body, and preferably for the entire student enrollment. (Could be a multiple use of gymnasium)

b. Food services and dining facilities adequate for the entire student body, possibly with lunch served in shifts.

Table D-1

Summary of Teaching Station Requirements
for the Desired Middle School/Jr. High School Program

Subject Area	Teaching stations required for indicated enrollment in grades shown: 6 through 8		7 and 8	
	500	600	300	400
Academic	9.2	11.0	5.4	7.2
Science	2.8	3.4	2.5	3.4
Music	.8	.9	.4	.5
Phys. Ed. and Health	2.4	2.8	1.4	1.9
Unified Arts	2.9	3.4	1.7	2.3
Study**	.6	.8	.6	.8

**Calculations assume study units of 75. No implications for desirable size are intended.

Source: Derived by Survey Staff from data in Table B-1. Number of teaching stations for any subject area is determined by dividing total school enrollment by the appropriate subject area index of the desired program from Table B-1.

c. A guidance office.

d. A room where an itinerant psychologist or a speech and hearing therapist can work with individual pupils.

e. A health clinic.

f. Lounge and workroom facilities for teachers.

3. Senior High School Needs

3.1 Teaching station requirements for senior high schools of various sizes are shown in Table D-2. The teaching station requirements for the desired program reflect a decrease in daily class periods to seven, the addition of art as a course of study, the expansion of academic and industrial arts offerings, and a reduction in study halls.

3.2 A classroom for slow learners is desired.

3.3 Other senior high school needs parallel those listed for the junior high/middle school (see items 2.4 and 2.5 above), including:

a. Library or instructional materials center

b. Office

c. Assembly space

d. Food service facilities

e. Guidance office

f. Room for psychologist and speech and hearing therapist

g. Health clinic

h. Lounge and workroom facilities for teachers

Table D-2

Summary of Teaching Station Requirements for the Present and Desired High School Programs

Subject Area	Teaching station requirements for indicated enrollment in grades 9 through 12			
	Present		Desired	
	600	700	600	700
Academic	6.1	7.1	6.9	8.1
Business				
Typing	.6	.7	.7	.9
Other	1.6	1.8	1.8	2.1
Home Economics	1.9	2.2	2.1	2.5
Industrial Arts	2.1	2.4	2.8	3.2
Vocational Agriculture	.7	.8	.9	1.0
Science				
Chemistry, Physics	.4	.5	.6	.7
Other	1.2	1.4	1.6	1.9
Music (Combined)	.6	.7	.8	.9
Instrumental	.2	.3	.3	.4
Vocal	.3	.4	.5	.5
Physical Education	1.1	1.3	1.3	1.5
Art	--	--	.7	.9
Study**	1.1	1.2	.7	.8

** Calculations assume s[illegible] units of 100. No implications for desired size are intended.

Source: Derived by the Survey Staff from data in Table B-1.

4. Other Facilities

4.1 No special facilities are needed for the adult education program.

4.2 Central administrative offices are needed for the superintendent of schools, the clerk-treasurer, and secretaries. A board of education meeting room is required.

4.3 Bus facilities for the storage of a fleet of 26 buses, including a facility where two or three buses can be under repair at any one time, are required.

Part E -- Existing School Plant

In this section of the Survey Staff report, the adequacy of the present facilities is reviewed in terms of their usefulness in meeting the educational needs of the children as outlined in the previous section.

1. General Description (See Table E-1)

   1.1 There are six school buildings in the district; two housing elementary students only, two housing elementary and junior high school age students, one housing elementary students and senior high school students and one housing senior high school students only.

   1.2 At present the board of education owns no real estate other than the present structures and their sites.

   1.3 The majority (4) of the present structures are using coal for heating.

   1.4 Three of six buildings are over 50 years old.

   1.5 All buildings with the exception of two (Madison Rural and Madison South) have been expanded one or more times.

   1.6 All buildings with the exception of the Madison South High School are in need of immediate corrective maintenance.

2. The Midway School

   2.1 The Site

      2.11 The building is located in the village of Sedalia facing State Route 38 which is main street of the village. There are no objectionable environmental influences around the school and the area is mainly residential.

Table E-1

Basic Data Concerning the School Plant

Building	Grades Housed	1968-69 Enrollment	Date of Const. Original	Date of Const. Additions	Age of Original Construction	Site Acres
Mt. Sterling	K-6, 9-12	712	1876	1877, 1881, 1922 1946, 1950	92	3.50
Fairfield	K-8	391	1917	1947	51	5.50
Madison Rural	K-4, 7-8	439	1940	--	28	12.00
Madison South	9-12	313	1956	--	12	178.41
South Solon	K, 1, 2, 4, 6	192	1914	1931	54	3.00
Midway	1, 3, 5	153	1938	1942	30	2.00

Source: Administrative Staff, Madison-Plains Local School District. Calculations by the Survey Staff.

2.12 The site size of two acres is not large enough to meet the needs of the students. A portion of the school play area is used as a bus loading station. There is no space for a softball diamond. Swings, climbing aparatus, seesaws, and other playground equipment is situated to the rear of the site. This is a very, very limited site considering the Council of Educational Planners recommendation of ten acres and one acre per 100 additional students.

2.13 The terrain of the site is such that it is used to the best advantage.

2.14 The lawn and shrubbery are well-kept and enhance the exterior features of the school.

2.2 The Gross Structure

2.21 This building is a single story of brick veneer with a concrete block foundation. The Survey Staff found no evidence of major structural weakness. There is, however, some evidence of exterior masonry deterioration. Areas between the bricks have been repaired by using caulking rather than cement for tuck-pointing.

2.22 Flashing around the roof line looks badly worn and probably should be replaced. All exterior trim needs paint.

2.23 The roof which was installed in the fall of 1968 clearly shows evidence of severe leakage. Plaster has fallen from the ceiling, particularly in the hallway leading from the academic area to the gymnasium.

2.24 The heating plant, consisting of low-pressure,coal-fed boilers, is located in a separate structure adjacent to the school. Heating is considered to be adequate.

2.25 The gymnasium floor is wood and shows signs of buckling; an indication of frequent and prolonged periods of water contact. The windows around the gymnasium premises show signs of leakage.

2.26 The school buses used for transporting students at this school are housed in a covered garage a short distance to the west and north of the school building.

2.27 The boys and girls lavatories appear to be in very poor, unhealthy condition.

2.3 Health and Safety

2.31 The building has a sufficient number of exits to facilitate prompt departure by students in case of an emergency. Some rooms provide direct exit to the outside.

2.32 Fire extinguishers were properly located and charged.

2.33 The placement of the heating plant in a separate building constitutes a favorable safety feature.

2.34 The massive roof leaks represent a danger of falling plaster to all personnel. This situation should be corrected as soon as possible.

2.4 Program Adequacy

2.41 This facility is too small to provide the kind of program needed by present day students. A loss of program continuity is realized by not having grades 2, 4, and 6 in the building

with grades 1, 3, and 5. A structure of this size also precludes the efficient use of specialists to augment the classroom activities.

2.42 An example of overcrowding is shown in grade 3 with 36 pupils in a room of only 693 square feet, a resultant of the restricted size of the school and the fact that there is only one third grade classroom in the school. Such overcrowding severely restricts the effectiveness of the teacher and prevents good educational programming.

2.43 The classrooms in this building give very little support to the instructional process. The lighting, incandescent in most rooms and uneven fluorescent in others, is totally inadequate. Classroom spaces are dark and uninviting. As a consequence, they are very poor in motivational value to the students and in morale value to the staff. The classrooms, ranging in size from 538 square feet to 727 square feet, are also too small to permit the development of the desired program with its emphasis on activities.

2.44 The health and faculty room is so inadequate in terms of attractiveness that it probably gets very little use.

2.45 The staff and parents of children in this building are to be commended in their efforts to establish a library facility. However, the space provided for the library is much too small, (333 square feet). The books are not catalogued and many of them are old and outdated. This facility as

presently instituted cannot possibly meet the needs of the students and staff.

2.46 There are no special facilities for the teaching of art and vocal music. The space of the basement used for remedial reading is unsatisfactory.

3. The South Solon Building

3.1 The Site

3.11 The South Solon School is located in the northern section of the village of South Solon in an area free of any objectionable environmental conditions.

3.12 The site is level and thereby fully usable. The location of the building allows for the most efficient use of the site.

3.13 A site of three acres is insufficient in size according to standards established by the Council of Educational Facility Planners. The recommended site size for an elementary school with the enrollment of South Solon is 12 acres.

3.14 The parking area and garage for school buses is located to the north of the school building.

3.2 The Gross Structure

3.21 The entire building has a brick veneer exterior. Window frames and parapet are constructed of wood and are in dire need of painting. The brick work shows some evidence of need for tuck-pointing.

3.22 The building is a two-story structure with gymnasium and cafeteria located on the lower level.

3.23 There is no evidence of major structural weakness of the building. There is, however, some evidence of roof leakage.

3.24 The heating plant consists of three coal-fired, low-pressured boilers which supplied forced air heat. The plant is reportedly in good condition.

3.25 The entire structure, particularly on the inside, showed evidence of almost total neglect in terms of maintenance. It would appear that the school has not been painted for a number of years. Consequently, the environmental atmosphere is at a very low level.

3.3 Health and Safety

3.31 The school is not built of fireproof materials and as a result constitutes a very dangerous safety hazard.

3.32 The entry way and hallway lighting is very poor. The stairwells are too narrow for adequate student mobility, particularly in case of an emergency.

3.33 The custodians floor mops are stored in what appeared to be the student health room. These mops are very dirty and stored in such a manner that the mop heads were on the floor rather than being hung in a proper manner. If this room is the health clinic, then another should be allocated for mop storage.

3.34 The evidence of roof leaks was such that the possibility of falling plaster was quite evident.

3.35 The Survey Team saw no evidence of a central communication network. The absence of a P.A. system would constitute a safety hazard as the possibility of communicating with the entire school population at one time in emergencies have been severely minimized. In addition, the educational value of a communications system is not available to these children.

3.4 Program Adequacy

3.41 It should be noted at the outset that the condition of a building is of prime importance in establishing the proper learning atmosphere. The South Solon Elementary School is one of the most depressing buildings visited by this Survey Team in many months. The atmosphere created in this building has to be very foreboding and unstimulating to the students and the staff who are forced to learn and work in such undesirable conditions. The staff is to be congratulated if any appreciable learning is taking place.

3.42 The continuity of learning experience is again limited at this building in much the same manner as at the Midway building because of the fact that the third and fifth grades are located elsewhere. In addition, the limited enrollment at this building precludes the establishment of two or three classes per grade level. This size school cannot make maximum efficient use of the educational specialists such as the physical education teacher, art teacher, and music teacher.

3.43 The library is very small, limited in shelf space and contains books that were almost useless due to old age. This facility could in no way meet the needs of children in contemporary American society.

3.44 Lighting conditions range from minimum to very unsatisfactory. Children particularly, should not have to work under such poor lighting circumstances as their eyes are still in the developmental stages.

3.45 It is important that teachers have at their disposal a restroom-lounge that is restful and allows them to take a much needed break. The present restroom has one naked incandescent bulb, no shades or furniture, and is in dire need of painting. Such conditions can only have a negative effect on staff morale and ultimately, an effect on the quality of instruction.

3.46 Room 4 still has the old traditional bolted furniture which undoubtedly restricts the flexibility of the instructional program offered in this room.

3.47 The room used for music and band is inadequate because of its long, narrow dimensions. This room and many others are environmentally poor and in dire need of painting.

3.48 The space provided for the school office is totally inadequate. The school office generally is the hub around which the wheel of instruction rotates. This particular

situation is so poor that it is difficult to envision it functioning as an elementary school. South Solon Elementary School has long since outlived its utilitarian function as being a facility in which the education of children can effectively take place.

4. The Madison-South High School

4.1 The Site

4.11 The building is located in open farm country between the village of Sedalia and the city of London. The school is located on State Route 38.

4.12 The site size of 178.41 acres greatly exceeds the standards established by the Council of Educational Facility Planners.

4.13 The shape and topography of the land as well as the building placement are such that maximum utility of this site is possible.

4.14 A large section of the school site is presently being used for farming purposes.

4.15 The lawn and shrubbery appear to be well kept and generally enhances the external appearance of the building.

4.2 The Gross Structure

4.21 The entire building, being recently constructed, is of fire-resistant materials with a brick exterior.

4.22 The quality of maintenance of this building was the highest for the entire district.

4.23 There was some evidence of minimum roof leakage and minor settling. There was also some indication that the flashing around the roof line needed some attention.

4.24 The heating plant which uses coal is inadequate and has the capacity needed for future building expansion.

4.25 The combination gymnasium and auditorium is very satisfactory for present enrollment needs and would be more than adequate as the school population increases.

4.26 The kitchen facilities are such that the present enrollment is handled with ease and they can be adapted to prospects of a larger enrollment.

4.27 The present structure is laid out in such a manner that the possibility of the expansion creates no major problems.

4.3 Health and Safety

4.31 The building has a sufficient number of exits so that the entire school population can be evacuated in a minimum of time.

4.32 Fire extinguishers were properly placed and charged.

4.33 Restroom facilities for students are limited with only one such facility for boys and one for girls.

4.34 The lighting environment for reading and working at pupil stations is, unfortunately, near the minimum level. The auditory conditions, however, are generally quite good.

4.35 Hallways are wide enough so as to allow for ease of pupil movement.

4.36 Parking is so arranged that there is little need for vehicular and pedestrian conflict.

4.4 Program Adequacy

4.41 Curriculum offerings to the students is limited because of the small enrollment and building size.

4.42 Counseling facilities are also limited as the counselor is presently using a music practice room for office space.

4.43 The boys' locker room is in need of additional locker spaces.

4.44 Science areas are quite adequate for the present enrollment and will suffice in the event of pupil increase.

4.45 The office practice area adjacent to the typing room is inadequate in size and in office practice equipment.

4.46 The homemaking suite is well equipped although the rooms are somewhat limited in floor space.

4.47 The vocational agriculture shop is equipped with overhead doors exiting to the rear of the school. The vocational education classroom is adjacent to the shop.

4.48 Industrial arts includes a variety of activities in an effort to meet the needs of the student population. A drafting room is adjacent to the shop area which also has overhead doors leading to the rear of the school. Female students also participate in the industrial arts activities.

4.49 The cafeteria doubles as a study hall. When not being used for dining purposes.

4.410 The library is totally inadequate for use in a school of this size. There are only 12 pupil stations and its area is much smaller than a regular classroom. Consequently, shelf space and storage for various types of audio visual and reference material is non-existent.

5. The Madison Rural School

5.1 The Site

5.11 The Madison Rural School is located in the north central section of the school district. This area is free of objectionable environmental conditions as it is used exclusively for farming purposes.

5.12 The site is quite level thus is fully utilizable for the educational purposes prescribed. The location of the building permits maximum use of the site.

5.13 This school with an enrollment of over 400 elementary and junior high school students should be on a minimum site of 20 acres, as prescribed by the Council of Educational Facility Planners. The present site is only 12 acres.

5.14 The parking and loading--unloading area is on the east side of the school and appears to be adequate in size.

5.15 The lawn and shrubbery is well cared for and does much to enhance the appearance of the school.

5.16 The refuse dump adjacent to the kindergarten and music building which is to the rear of the main structure is unsightly and represents a possible health hazard.

5.17 Playground space is provided on either side of the school and used respectively by the elementary and junior high school students.

5.2 The Gross Structure

5.21 The building is a two-story structure with a brick veneer exterior.

5.22 Although there is evidence of considerable settling, the Survey Team did not find the building to be structural unsound.

5.23 Tuck-pointing between the bricks has been done with caulking compound rather than using cement. This procedure has produced a rather unsightly appearance.

5.24 The windows, frames, facia, and other trim work are in need of painting.

5.25 There is ample evidence of roof leaks in many areas of the school.

5.26 The heating system is of the low-pressure, hot water type. Coal is used as the source of fuel.

5.3 Health and Safety

5.31 The Survey Team noted the absence of a complete central communications network which could, in an emergency, be considered an unsafe factor.

5.32 Fire extinguishers are properly located and charged.

5.33 The building appears to have sufficient exits which would allow for rapid evacuation in an emergency.

5.34 The width of the hallways is sufficient for ease of pupil movement.

5.35 The lighting which is of the incandescent and florescent types appears to be inadequate for student and staff needs.

5.4 Program Adequacy

This school in its enrollment has both elementary and junior high school-age students. Such a practice is not educationally feasible if a quality program is to be provided for all pupils. The Survey Team also noted that the size of the school in enrollment which is 439 total is too small to provide the comprehensive type of program deemed to be necessary for children living in a contemporary American society.

5.42 The spaces being utilized for instruction ranging in size from 630 to 940 square feet are smaller than those recommended to facilitate the implementation of the desired program. These same classrooms are in dire need of being painted and properly lighted if a more favorable learning environment is to be provided.

5.43 The science room is sorely lacking in terms of providing the proper equipment for student and teacher utilization. It was noted by the Survey Team that no art, industrial arts or guidance facilities are provided.

5.44 The library-audio visual center located in the cafeteria is totally inadequate in terms of location, size and availability of equipment, reference materials and books.

5.45 Locker facilities for physical education are old, out of date and in some instances, inoperable. The ventilating system for the locker room appears to be adequate.

5.46 The lighting in the gymnasium is of such poor quality that there is no doubt that the types of activity and the successful implementation of the comprehensive physical education program is seriously hampered by this deficiency.

5.47 The classroom in the basement, opposite the boiler room, is too small for the number of students within and is environmentally very depressing.

5.48 The kindergarten room in the annex which appears to be a converted storage building or garage is not conducive to learning. The Survey Team would have some questions as to the desirability of kindergarten children sitting on a concrete floor, particularly in the wintertime as the heating system is of the forced hot air type. The lack of equipment was evident and the location of this room adjacent to the instrumental music room undoubtedly presents problems for all concerned.

6. The Fairfield School

6.1 The Site

6.11 The Fairfield School is located in the northeast quadrant of the school district. The Survey Team found no objectionable

environmental conditions which would impede the maximum use of this site.

6.12 The site being quite level is, in the opinion of the survey team, used to maximum advantage for educational activities.

6.13 The size of the site which is five and one-half acres falls far short of that recommended by the Council of Educational Facility Planners for a school of this enrollment.

6.14 The parking and bus loading area appears to be adequate to handle the number of students presently enrolled.

6.15 The lawn and shrubbery is well cared for, enhancing the appearance of the building.

6.16 The practice of having an open refuse and trash area outside the cafeteria door, detracts from the school's appearance. There is also the possibility of a health hazard as children may find themselves playing in this vicinity.

6.2 The Gross Structure

6.21 The original building is a two-story structure with a brick veneer exterior and wood framing. The addition to the original building is a combination gymnasium-auditorium, also of brick veneer with steel window frames.

6.22 The cement between the brickwork has eroded to the extent that some bricks will begin to fall if immediate action is not taken.

6.23 The basic structural foundation and soundness of the building appears to be of acceptable quality.

6.24 All floors in the building other than those in the basement and the staircases are made of wood.

6.25 The heating plant consists of three-low pressure boilers utilizing oil as a source of fuel.

6.3 Health and Safety

6.31 This particular structure has not been constructed with fireproof materials, resulting in a definite safety hazard. It was also noted by the Survey Staff that the stairwells are open which also constitutes a real hazard in case of fire.

6.32 There is evidence that some exterior bricks are on the verge of falling as a consequence of poor maintenance. This situation represents an acute safety problem for the students in attendance.

6.33 Acoustical tile in the gymnasium ceiling is beginning to loosen and should begin to fall shortly, thereby presenting a safety problem for those children playing therein.

6.34 Fire extinguishers are properly located and appear to be recently charged.

6.35 The ceiling in the basement room being used for remedial reading shows evidence of falling plaster. This situation should be corrected as soon as possible.

6.36 The equipment available to staff and students appears to be in working order and free of hazards.

6.37 The lighting in the school is not of acceptable quality and should be corrected.

6.4 Program Adequacy

6.41 The limited enrollment of 391 students affects the type and quality of the program available to the students in attendance.

6.42 Housing elementary and junior high school age students in one building presents problems which act as constraints to providing adequate education for either group.

6.43 The classrooms, varying in size from 440 to 912 square feet, are not large enough to facilitate the implementation of the desired program. Note that the kindergarten is only 440 square feet--far short of the recommended 1200 square feet.

6.44 The physical facilities and equipment needed to provide the junior high school students with certain desired experiences is conspicuous by its absence. The Survey Team noted the absence of an art room, industrial arts area, home economics area, science equipment and guidance offices.

6.45 The stage of the gymnasium and auditorium appeared to be used for music instruction. This undoubtedly creates a problem when students are utilizing the gymnasium for physical education activities.

6.46 The playground facilities are not adequate to meet the needs of active, growing, young children.

6.47 The library is totally unacceptable in all areas such as size, shelf space, equipment, reference materials, audio visual equipment and lighting.

6.48 The space used for remedial reading is in reality a storage room which has not been remodeled to serve its newly prescribed function. This is undoubtedly a very poor environmental setting for those children who have already been diagnosed as having special learning problems.

6.49 The Survey Team noted the absence of a teacher work area and lounge.

6.410 The office, a one-room setting, provides no space for conferences.

6.411 The continued use of bolted-to-the-floor furniture is an unnecessary program constraint.

7. The Mount Sterling High School

7.1 The Site

7.11 Mount Sterling High School is located in the heart of Mount Sterling in the southeast quadrant of the school district. This is the only school that is located in a semi-urbanized area.

7.12 The site of three and one-half acres is level so that all of it is usable for educational purposes. The building is located so that the site is used to maximum potential.

7.13 The Council of Educational Facilities Planners recommend a minimum of 30 acres plus one acre for each 100 students

in attendance. It can be readily seen that the Mount Sterling site falls far short of meeting these standards.

7.14 Parking and bus loading facilities are inadequate at this site.

7.15 The school is adjacent to a railroad and a lumber mill which are not environmentally inviting.

7.16 The playground, of very limited size, is located at the rear of the school.

7.2 The Gross Structure

7.21 The school is a two-story structure with a brick exterior. There is some evidence of settling, particularly in the original building which was constructed in 1876.

7.22 The trimwork around the building is in need of painting. There is also a need for tuck-pointing between the bricks around the window areas.

7.23 The floors of the halls, classrooms, and the staircases in the original building are constructed of wood.

7.24 The heating plant which is a low-pressure, hot-air, coal-fed system appears to be in satisfactory operating condition.

7.25 The custodial staff appears to have done an adequate job of maintaining the appearance of the school.

7.3 Health and Safety

7.31 Some sections of this school were constructed with flammable materials thereby constituting a safety hazard.

7.32 The absence of fire doors, resulting in open stairwells, is a serious safety deficiency.

7.33 The worn stair steps in the elementary section should be corrected.

7.34 Fire extinguishers are strategically placed and charged.

7.35 There appears to be a sufficient number of exits to facilitate the prompt departure by students in case of an emergency.

7.36 Lighting in the classroom and other learning areas is in need of improvement.

7.4 Program Adequacy

7.41 The low enrollment of high school students restricts the depth and scope of the curriculum offering.

7.42 All students are adversely affected when the unnatural practice of housing elementary and high school children together is practiced.

7.43 The classrooms, ranging in size from 400 to 868 square feet are not large enough to facilitate the implementation of the desired program for elementary or high school students. Note that Mrs. Borror's first grade classroom is only 484 square feet and the chemistry lab is only 400 square feet.

7.44 The library, covering 276 square feet, which is used exclusively by the high school students is totally inadequate. It is impossible for a room of this size to serve the needs of the students in attendance.

7.45 The chemistry-physics laboratory is so old and lacking in space, equipment and lighting and storage as to be beyond description. This facility in no way could possibly meet the needs of high school students.

7.46 The stage of the auditorium is used for music for both elementary and high school students. Such a situation is not conducive to quality programming.

7.47 Although one half of the typewriters in the business education are electric, the room itself is too small and cluttered to enhance the experiences desired by students in this area.

7.48 Bolted-down furniture in the elementary section is a serious constraint to positive program development.

7.49 The industrial arts program is limited in activities provided due to the lack of space and faciiities. The drafting class is taught in the auditorium. The vocational education program is rated as being poor in all areas.

7.410 The homemaking area is not adequate as indicated by the fact that it covers a total area of only 1,040 square feet.

7.411 The Survey Staff found no provisions for art or special education classes.

7.412 The fact that there are no lockers and shower facilities is a deterrent to the improvement of physical education instruction.

7.413 It would appear that no provisions have been made to provide a teacher-lounge-workspace area.

Table E-2

A Summary of the Quality of
Present Facilities for Housing the
Desired Educational Program in the
Elementary and Junior High Schools

	Quality				
Facility	Midway	Madison Rural	Mt. Sterling	South Solon	Fairfield
Site	I	S	I	M	P-I
Building (general)	M	M	I	I	P
General classrooms	M	M	I	I	P-I
Special classrooms	P	M	I	I	P
Auxilary instructional facilities	P	M-P	I	I	P
General service facilities	M	M	I	I	P

Evaluation symbols:
G - Good: no improvement warranted
S - Satisfactory: improvement optional
M - Minimal: improvement desirable
P - Poor: improvement necessary
I - Inadequate: replace

Evaluations by the Survey Staff.

Table E-3

A Summary of the Quality of Present Facilities for Housing the Desired Educational Program in the High Schools

Facility	Quality	
	Mt. Sterling	Madison South
Site	I	G
Building (general)	I	S
General classrooms	I	S
Special classrooms	I	S
Auxilary instructional facilities	I	S-M
General service facilities	I	S-M

Evaluation symbols:
G - Good: no improvements warranted
S - Satisfactory: improvement optional
M - Minimal: improvement desirable
P - Poor: improvement necessary
I - Inadequate: replace

Evaluations by the Survey Staff.

Table E-4

Madison-Plains Local School District Elementary Classrooms
Grouped According to Size

School	Madison Rural	South Solon	Midway	Mt. Sterling	Fairfield	Size Rating
Under 500 sq. ft.		4		1	1	I
500-600 sq. ft.		1	2	2	3	I
600-700 sq. ft.	9	3	3	4	2	P
700-800 sq. ft.	4	1	3	2	5	M
800-900 sq. ft.		1		2		S
Over 900 sq. ft.	1				1	G

Rating Scale: I - Inadequate = under 600 sq. ft.
P - Poor = 600-700 sq. ft.
M - Minimal = 700-800 sq. ft.
S - Satisfactory=800-900 sq. ft.
G - Good = Over 900 sq. ft.

Data Source: Administrative Staff, Madison-Plains Local School District.

One of the most important aspects of an educational program is the adequacy of the facilities provided for instructional purposes. The kind of facilities provided must be carefully considered when evaluating the effectiveness of the present program and the applicability for the introduction of the desired program as outlined by the teaching and administrative staff. The effectiveness of the staff is closely correlated to the quality of the facility provided by the voters in the district. Up-to-date, flexible facilities enable the staff to continuously upgrade the types of experiences needed for today's school-age children.

After careful evaluation it is the opinion of the Survey Staff that the majority of schools in the Madison-Plains district are not of the quality needed to perpetuate the desired educational program. These facilities as provided will tend to restrict effectiveness of the teaching and administrative staff. It is the opinion of the Survey Staff that the facilities presently provided have a definite adverse effect upon the attitudes and productivity of the teachers and students.

Table E-2 is a summary of the quality of the facilities used to house elementary and junior high school children. Mount Sterling and South Solon schools are totally inadequate and should be replaced. It is worth noting that these facilities have served their respective communities well in the past, but they cannot fulfill the demands of a modern, contemporary society. Madison Rural is the only one of the three remaining structures that the Survey Staff recommends to be continued as an instructional center. Fairfield and Midway Schools are no longer acceptable as centers of learning.

Further evidence of the inadequacy of these facilities used for instructing elementary and junior high school students is found in the size of the classrooms--quantitatively speaking and square foot area. Table E-4 summarizes the inadequacies in all of the facilities. It should be noted that only one classroom received a "good" rating. Three rooms received a "satisfactory" rating; all other rooms are rated from "minimum" to "inadequate." Constraints of this type should be removed if this type of program as expressed by the staff is to be realized.

There are two high schools in Madison Plains and only Madison South provides adequate facilities for quality instruction. Mount Sterling High School because of gross inadequacies as noted elsewhere in this report should be discontinued as an instructional center. See Table E-3.

Part F -- Financial Resources

Concomitant with the importance of relevant programing and the availability of adequate facilities to house it, is the ability and willingness of a school district to financially support education. In assessing the availability of financial resources through which a school plant improvement program might be implemented, consideration was given to the trend in tax valuations, school tax rates, and the willingness of the citizens of the Madison-Plain Local School District to support taxing proposals. It should be noted that the tables herein represent Madison and the Plains Local School Districts separately as these districts have only recently been consolidated.

1. Tax valuations and tax rates in Madison-Plains (Table F-1a and F-1b)

   1.1 The 1967 tax valuation had increased by 53% in the Plains district and by 47% in Madison over that of 1959.

   1.2 During the same period of time, the enrollment in the Plains district increased by 27% and decreased by 4% in Madison.

   1.3 The assessed valuation per pupil has increased from $10,262. to $12,295. in the Plains district for an increase of 20%. In Madison the per pupil assessed valuation increased from $14,641. to $22,346. for a net gain of 53% - 1.4. The net gain in both districts in per pupil valuation as a result of consolidation is 36.5%.

   This increase would seem to represent a sizable gain in the fiscal resources of the new district; the fact is that much of

Table F-1a

Assessed Valuation, Assessed Valuation
Per Pupil and School Tax Rate in
Madison-South School District
1959 through 1967

Tax Collection Year	Assessed Valuation in 1000's	Index	K-12 Enrollment		Assessed Valuation Per Pupil		School Tax Rate	
			Number	Index	Amount	Index	Amount in Mills	Index
1959	15,856	100	1083	100	14,641	100	18.90	100
1960	19,719	124	1071	99	18,412	126	16.50	87
1961	19,718	124	1090	101	18,090	124	16.60	88
1962	20,205	127	1118	103	18,072	123	18.70	99
1963	20,438	129	1093	101	18,699	128	18.60	98
1964	20,829	131	1077	99	19,340	132	18.10	96
1965	20,978	132	1043	96	20,113	137	18.10	96
1966	23,015	145	1030	95	22,345	153	16.70	88
1967	23,240	147	1040	96	22,346	153	19.60	104

Source: Administrative Staff, Madison-Plains Local School District.

Calculations by the Survey Staff.

Table F-1b

Assessed Valuation, Assessed Valuation
Per Pupil and School Tax Rate in
The Plains School District
1959 through 1967

Tax Collection Year	Assessed Valuation in 1000's	Index	K-12 Enrollment		Assessed Valuation Per Pupil		School Tax Rate	
			Number	Index	Amount	Index	Amount in Mills	Index
1959	8,938	100	871	100	10,262	100	19.30	100
1960	10,797	121	835	96	12,931	126	17.20	89
1961	10,710	120	896	103	11,953	116	20.20	105
1962	11,077	124	918	105	12,066	118	20.00	104
1963	11,582	130	1016	117	11,400	111	19.80	103
1964	11,894	133	1042	120	11,415	111	19.80	103
1965	12,126	136	1046	120	11,593	113	19.70	102
1966	13,001	145	1085	125	11,982	117	18.80	97
1967	13,635	153	1109	127	12,295	120	20.80	108

Source: Administrative Staff, Madison-Plains Local School District.

Calculations by the Survey Staff.

Table F-1c

Assessed Valuation, Assessed Valuation Per Pupil and School Tax Rate in the Newly Consolidated Madison-Plains School District for 1969

Tax Collection Year	Assessed Valuation in 1000's	Index	K-12 Enrollment		Assessed Valuation Per Pupil		School Tax Rate	
			Number	Index	Amount	Index	Mills	Index
1968	36,364		2200		16,529		20.90	

Source: Administrative Staff, Madison-Plains Local School District.

Calculations by the Survey Staff.

the gain has been offset by the increased cost of living. In November, 1968 the consumer price index was 123.4 with 100 being the 1957-59 average. Consequently, a November, 1968 dollar was worth $.81 in 1957-59 money. Building costs increased at an even more accelerated pace. In the Columbus area Boeckh's cost index for construction of school type buildings rose from 311.9 in September 1960 to 389.7 in September, 1968; an increase of 25.4%.

1.4 The school tax rate in mills grew from 19.30 to 20.80 in the Plains district for an 8% gain and from 18.90 to 19.60 for a 4% increase in Madison local. The new school tax rate of the combined local school districts is 20.90 mills. See Table F-1c.

2. Ability to support schools

2.1 Among the 8 local school districts in Madison and Clark Counties Madison-Plains ranked first in assessed valuation per pupil. (Table F-3)

2.2 Among the 20 selected local school districts of comparable size throughout the state, Madison-Plains ranked 6th in assessed valuation per puil. (Table F-4)

3. Willingness of voters to support schools

3.1 A review of the voting record seemed to indicate that the voters in both districts have been supportive of tax levies and bond issues.

3.2 No bond issue or levy has been defeated in the Plains school district since 1958. Table F-2a.

3.3 Madison south local district voters have defeated 5 levies since 1949. Subsequent elections resulted in passage of the millage levies. All bond issues in this district have passed with substantive support. Table F-2b.

3.4 Such a record would indicate that subsequent levies and bond issues would have a good chance of being approved by the voters.

3.5 Madison-Plains placed eighth in the total school tax rate among 8 local school districts in Madison and Clark Counties. (Table F-3)

3.6 Madison-Plains ranked last in total school tax rate among 20 local school districts for comparable size throughout the state. (Table F-4) <u>This Represents A Very Poor Showing On The Part Of The District In Assessing Itself To Provide Quality Education For Its Students</u>.

4. Potential funds for building and remodeling

4.1 In the state of Ohio the total bonded indebtedness of a school district is limited to 9% of the total assessed valuation. The total amount of new indebtedness that can be incurred is determined by calculating the 9% of the total assessed valuation and then deducting the outstanding school district indebtedness.

4.2 In Madison-Plains the allowable bond indebtedness on assessed valuations of $36,364,304 is $3,272,787. The bonded indebtedness of the consolidated district as of January 1, 1969 was approximately $282,000 which leaves a margin of $2,990,787 for additional debt.

4.3 Borrowing capacity will be increased beyond the $2,990,787 figure by approximately $50,000 per year through payment on existing debt and by an additional $90,000 for each $1,000,000. increase in tax valuation.

Table F-2a

Characteristics and Dispositions of School Operating Levies and Bond Issues Submitted to the Voters of the Plains Local School District for the Period 1948-1966

Year Submitted	Amount in Mills	Term	Purpose of Levy	Percent Approval	Disposition
1948			Operating	84	Yes
1949	2		Operating	76	Yes
1951	5		Operating	75	Yes
1952	3.5	3 years	Current expenses	65	Yes
1953	1	5 years	Heating system	61	Yes
1953	2.7	5 years	Operating	85	Yes
1954	2	2 years	Operating	67	Yes
1955	2.9	3 years	Operating	70	Yes
1956	4	5 years	Operating	73	Yes
1956	8.5	5 years	Operating	66	Yes
1958	3.5		Operating	53	Yes
1961	10.3	5 years	Operating	66	Yes
1963	3	10 years	Operating	75	Yes
1965	6.2		Operating	67	Yes
1966	10.3	10 years	Operating	72	Yes
		Bond Issues			
1946	$150,000.00		Building		Yes
1950	$118,500.00		Addition	70	Yes

Source: Administrative Staff, Madison-Plains Local School District.

Calculations by the Survey Staff.

Table F-2b

Characteristics and Disposition of School Operating Levies and Bond Issues Submitted to the Voters of the Madison South Local School District for the Period 1949-1966

Year Submitted	Amount in Mills	Term	Purpose of Levy	Percent Approval	Disposition
1949			Operating	67	
1949			Operating	63	
1950			Operating	82	
1951	3		Operating	72	
1951	2.5		Operating	90	
1952	1	4 years	Operating	65	
1952	2	5 years	Operating	66	
1954	1	5 years	Operating	63	
1954	2	3 years	Operating	62	
1955	4.4	5 years	Operating	66	
1956	2	5 years	Operating	58	
1958	3	5 years	Operating	52	
1959	1	10 years	Operating	51	
1959	3	10 years	Operating	31	No
1960	3	5 years	Operating	47	No
1960	4.4	5 years	Operating	60	
1960	3	5 years	Operating	46	No
1961	1.7	5 years	Operating	65	
1961	2.3	5 years	Operating	49	No
1962	2.3	5 years	Operating	56	
1963	2.5	2 years	Operating	69	
1965	6.2		Operating	66	
1966	1.7	1 year	Operating	67	
1966	2.9	3 years	Operating	49	No

Bond Issues

	Amount in Dollars			
1953	$148,000.00	Construction	64	Yes
1954	$500,000.00	New School	60	Yes

Source: Administrative Staff, Madison-Plains Local School District.

Calculations by the Survey Staff.

Table F-3

Comparison of Assessed Valuation Per Pupil and School Taxes in the Madison-Plains Local School District and Other Local School Districts in Madison and Clark Counties

School District	Aver. Daily Membership		Assessed Valuation Per Pupil		Total School Tax Rate		Per Pupil Local Tax Revenue for Current Expenses*		Per Pupil Local Tax Revenue for all School# Purposes	
	Number	Rank	Amount	Rank	Mills	Rank	Amount	Rank	Amount	Rank
Mad River Green	2915	3	7,247	7	33.60	1	179	7	243	7
New Carlisle Bethel	6009	1	6,316	8	32.50	2	153	8	205	8
Northeastern	3027	2	11,870	4	23.40	7	254	4	277	5
Northwestern	1814	5	10,319	5	25.70	5	206	6	265	6
Southeastern	954	8	13,525	2	30.30	3	314	2	409	1
Madison-Plains	2200	4	16,529	1	20.90	8	324	1	345	2
Jefferson	1444	7	10,235	6	30.00	4	221	5	307	4
Johnathan Adler	1542	6	13,228	3	24.80	6	275	3	328	3

Note: *The product of assessed valuation per pupil time school tax rate for current expenses.
#The product of assessed valuation per pupil times total school tax rate including debt service.

Source: Ohio Education Association, "Basic Financial Data of Ohio School Districts," Research Report, Volume XXII, No. 2 (Columbus, Ohio: The Association, March, 1968).

Calculations by the Survey Staff.

Table F-4

Comparison of Assessed Valuation Per Pupil and School Taxes in the Madison-Plains Local School District and Other Local School Districts in Ohio with Average Daily Membership Between 2000 and 2450

School District	Aver. Daily Membership		Assessed Valuation Per Pupil		Total School Tax Rate		Per Pupil Local Tax Revenue for Current Expenses*		Per Pupil Local Tax Revenue for all School# Purposes	
	Number	Rank	Amount	Rank	Amount in Mills	Rank	Amount	Rank	Amount	Rank
Bath	2342	2	22,059	3	21.60	19	387	4	476	4
Elida	2270	8	11,725	9	24.65	15	227	11	289	12
Madison	2089	19	6,372	20	31.10	5	150	19	198	19
Ross	2142	18	8,336	17	33.82	3	194	15	281	13
Graham	2282	6	10,819	10	23.30	18	207	14	252	15
Beachwood	2274	7	19,304	4	45.30	1	728	1	874	1
Solon	2299	5	28,039	1	31.20	4	651	2	874	2
Buckeye Valley	2220	11	12,130	8	26.00	11	250	9	315	9
Kenston	2245	10	9,530	14	41.40	2	320	7	394	6
Rolling Hills	2075	20	8,150	18	25.30	12	167	18	206	18
North Fork	2206	12	8,563	16	26.70	10	170	17	228	17
Highland	2144	17	9,759	13	30.60	6	223	12	298	10
Maysville	2335	3	10,489	11	23.50	17	180	16	246	16
Benton-Carroll	2198	14	13,187	7	25.20	13	286	8	332	8
Genda Area	2152	16	10,145	12	29.30	7	242	10	297	11
Teays Valley	2404	1	17,317	5	24.00	16	341	5	415	5
Waverly	2327	4	7,581	19	24.70	14	146	20	187	20
Southeast	2153	15	9,418	15	26.90	9	214	13	253	14
MADISON-PLAINS	2200	13	16,529	6	20.90	20	324	6	345	7
Springfield	2258	9	24,157	2	29.10	8	575	3	703	3

Notes: *The product of assessed valuation per pupil times school tax rate for current expenses.
#The product of assessed valuation per pupil times total school tax rate including debt service.

Source: Ohio Education Association, "Basic Financial Data of Ohio School Districts," Research Report, Volume XXII, No. 2 (Columbus, Ohio: The Association, March, 1968).
Calculations by the Survey Staff.

Part G -- Recommendations

Careful analysis of the preceding sections of this report along with certain guiding principles provide the basis for the recommendations that follow. A long-range plan is presented as well as immediate action recommendations. In the case of Madison-Plains Local School District, the accomplishment of immediate action recommendations also implements the long-range objectives.

1. Basic Principles

1.1 The following guiding principles which are generally applicable in any school plant survey have been observed in making recommendations.

1.11 A school plant should facilitate the desired educational program.

1.12 Safe and healthful housing should be provided for all children.

1.13 All short-range efforts should be consistent with the long-range plan.

1.14 The long-range plan should be flexible enough to allow for periodic shifts in priority and for later expansion.

1.15 Optimum use should be made of existing facilities, yet this use should not prevent realization of long-range efforts.

1.16 The recommendations should be consistent with the financial ability of the school district.

1.2 In the case of the Madison-Plains Local School District, the following factors have been given special consideration.

1.21 The possibility of increased housing development in Mt. Sterling and/or along I-70 and other major roads without any certainty as to the timing, extent, or precise location of such development.

1.22 The possibility, but not the certainty, that the school district might be enlarged by consolidation with the London City School District.

2. The Long-Range Plan

2.1 The long-range plan assumes a K5-3-4 pattern of organization, but allows for modification as circumstances may require.

2.2 The long-range plan provides for:

2.21 A 4-year high school

2.22 A 3-year middle school

2.23 Two K-5 elementary schools

2.3 The 4-year high school facility is an expanded Madison South building. By the addition of classrooms and special rooms, this facility can adequately serve for the foreseeable future. Any future enrollment increases can be easily accommodated here.

2.4 Since no middle school presently exists, the long-range plan contemplates a three-year facility housing grades 6 through 8. If later enrollments should be larger than anticipated, the initial building could be enlarged to provide space for additional students. If, on the other hand, enrollment should decrease, the 5th grade could be added to the middle school.

2.5 Under this plan the elementary schools will include kindergarten and grades 1 through 5. Two such units would be needed initially with potential for added units should enrollments warrant.

3. Alternative Plans

3.1 The K6-3-3 pattern of organization was studied as a possible alternative. It was rejected for the following reasons:

3.11 A 3-year high school would not provide sufficient students for a varied, comprehensive program of education.

3.12 There seems to be local preference for a 4-year high school.

3.13 Inclusion of the ninth grade in the middle school unit would make it more difficult to develop a program to meet the needs of youngsters of that age, and would make it more likely that the middle school would become a slightly modified version of the high school. This imitation of the senior high school nationwide has prevented the junior high school from achieving many of the purposes for which it was intended.

3.2 The K6-2-4 pattern of organization was also studied as a possible alternative. Although it would retain a 4-year high school, several valid objections to this plan arose.

3.21 A two-year junior high school would enroll too few students to permit efficient use of resources in providing an adequate program.

3.22 It is educationally desirable to include grade 6 in the middle school. The age range 11 to 14 seems to be most closely related to comparable and compatible educational needs.

3.3 Still another possibility studied was the K4-4-4 plan of organization. This plan would provide a 4-year high school center, a 4-year middle school (or two 4-year middle schools) and two K-4 elementary schools. While this plan has merit and could be a transitional step toward implementation of the long-range plan, it was rejected for several reasons. Among them is the concern for providing a plan that gives continuity to the educational program of the school district, the lack of staff enthusiasm for such an organizational pattern, and the realization that Madison-Plains Local School District does have resources to implement the long-range plan immediately.

4. Recommendations for Immediate Action

4.1 High School

4.11 IT IS RECOMMENDED that the Madison South High School building be expanded to house the total high school

enrollment (9 through 12) of the Madison-Plains Local School District.

This building is well located to serve the entire grade 9 through 12 enrollment of the school district and it lends itself well to expansion. Therefore,

4.12 IT IS FURTHER RECOMMENDED that educational planning leading to the construction of an addition to the Madison South building be initiated immediately. Facilities to be added include classrooms, shop facilities, art facility, library, and guidance facilities. Provision of these spaces should enable the building to house projected enrollments for the foreseeable future.

4.2 Middle School/Junior High School

4.21 IT IS RECOMMENDED that planning be initiated to plan and construct a middle school to house a maximum anticipated enrollment of 550 to 600 students.

4.22 IT IS RECOMMENDED that the middle school be located on the existing 178 acre site presently housing the Madison South High School, for the following reasons:

a) This location will greatly simplify the transportation system.

b) This location will provide opportunity for close coordination of the total secondary program and for more efficient utilization of staff.

c) This location will prove the most financially sound as the site is already owned by the school district.

4.3 Elementary School

4.31 IT IS RECOMMENDED that the Madison Rural School be continued in service as an elementary center to house grades K-5. It is further recommended that educational planning be initiated for the rehabilitation of this facility to enhance its value as an elementary center. The site of 12 acres, while minimal, is sufficient for an elementary center. Efforts to add 3 to 4 acres should be made.

4.32 IT IS RECOMMENDED that an elementary unit to house grades K-5 be planned and constructed in the Mount Sterling area. This school should contain facilities to house 3 sections each of grades 1 through 5; 2 kindergartens, a special education facility, plus space for related activities, i.e., physical education, art, music, cafeteria, etc.

4.33 IT IS RECOMMENDED that the South Solon unit be phased out of service upon completion of the aforementioned projects. This facility has served the district well over the years and its original structure is now 55 years of age. The rooms are small in size and are presently very inadequate to house the elementary program. Deterioration of this facility creates severe problems of maintenance. The site of 3 acres is severely restrictive of the educational program.

4.34 IT IS RECOMMENDED that the Fairfield building be phased out upon completion of the building program. With the exception of the gymnasium, this facility has little to recommend its continued service. The rooms are small, lighting inadequate, the wood floors and open stairwells create fire hazards, and the plumbing is of dubious quality. The gymnasium area could, with some rehabilitation, continue to serve the community as a recreation/meeting space for the immediate future. The size of the site (5.5 acres) is too small for a unit housing 396 students.

4.35 IT IS RECOMMENDED that the Mount Sterling building be phased out upon completion of the building program. The age of this facility, its educational inadequacy, the nature and size of the site, the difficulty of site expansion because of its location, the electrical and mechanical problems inherent in such a building all combine to suggest abandonment of this facility. Portions of this facility are over 90 years old and because of it non-fireproof construction, this unit must be considered a safety hazard.

4.36 IT IS RECOMMENDED that the Midway building be converted into an administrative and special services center upon completion of the building program. Offices for the superintendent, clerk-treasurer, and Board of Education meeting rooms can be developed here. In addition, a central warehouse to store school supplies, custodial

and maintenance items, hot lunch supplies, and instructional materials is easily projected. Spaces for itinerant personnel and system-wide support staff can be developed at this location.

5. Alternative Solutions Studied

5.1 Converting present high school to middle school use, constructing a new high school to the east of the present site, constructing a new elementary unit in Mount Sterling, and remodeling the Madison Rural unit.

This plan is quite similar to the chosen plan in that it provides for 2 elementary schools, 1 middle school, and 1 high school. Estimated cost of this plan is higher than the recommended plan because of higher per pupil costs of secondary (high school) facilities. This was rejected because of the higher costs.

5.2 Addition to the present high school, a new elementary unit at Mount Sterling, conversion of Fairfield to middle school use, continued use of Midway as an elementary center (with an addition), conversion of Madison Rural to middle school use. While this plan is less costly than the recommended plan, it continues inferior and outmoded facilities in service and does little to resolve the complex transportation problems that now exist. These problems, if eliminated, can save considerable operating difficulties

and expense for the ensuing years and in addition can provide improved educational opportunity for the students of the district.

Part H -- Financial Implications

Analysis of financial data indicate that the Madison-Plains Local School District presently has one of the lowest tax rates in the State of Ohio. In addition, the bonding capacity available to the Board of Education is approximately $3,000,000. This amount far exceeds the estimated costs of implementing the long-range and immediate action recommendations proposed above.

1. Estimated total expenditures are as follows:

1.1	High school addition and remodeling including the construction of a new library, industrial arts room, art studio, enlarged kitchen, classrooms, and restrooms in addition to the conversion of the superintendent's suite into guidance and health facilities:	$ 300,000 - $ 350,000
1.2	Middle school to house 550-600 students:	$1,000,000 - $1,200,000
1.3	Elementary school to house 450 students plus 2 kindergarten rooms:	$ 650,000 - $ 700,000
1.4	Rehabilitation of Madison Rural Elementary and Midway:	$ 100,000 - $ 150,000
	TOTAL	$1,950,000 - $2,400,000

2. Implications for the tax rate needed to retire a bond issue at approximately $2,000,000 are dependent upon many variables, among them the rate of interest and the growth of the tax duplicate.

Assuming little if any growth in school district valuation and a high rate (6%) of interest, it is still possible to predict an average tax rate of approximately 4 mills needed to retire such an issue. Any increase in the tax rolls would, of course, reduce this rate over the life of the bond issue. A more favorable rate of interest would also reduce the tax rate.

In any event, the tax rate, to accomplish the total long-range plan, which provides adequate school facilities for the foreseeable future, would be well within the financial capacity of the school district and would compare favorably with other Ohio school districts.

Conclusion

It is the opinion of the Ohio State University Survey Team that the Board of Education of the Madison-Plains Local District is to be complimented for their concern for and dedication to the program of education offered the children of the district. It is also a pleasure to thank the professional staff of the district and particularly Superintendent Martin for the fine cooperation and data provided during the course of the study. The interest and commitment exhibited by these people indicate their very deep concern for the young people of the school system and their strong desire to continue to improve the educational opportunities available to the youth of the community. We are proud to have had a part in the development of this plan.